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SUBJECT: NIGERIAN PETROLEUM VULNERABILITY ASSESSMENT

REF: SECSTATE 182688

Classified By: Classified By: Consul General Brian L. Browne
for Reasons 1.4 (D, E, & G)

Summary

1. (S) Given the presence of armed militia and of oil bunkering enterprises, the GON has difficulty maintaining security of the oil producing Nigerian Delta region. Parts of the region are effectively under the control of the militia or bunkering groups than governmental authority. As the December 21 attack against Shell's Opobo terminal pipeline indicates, the GON is ill-prepared for sabotage or a terrorist incident against petroleum production infrastructure. The GON has deployed a special military task force to the area in an attempt to restrain the militia. Other than that, the GON has taken no specific actions to protect against terrorist attacks. There is no clear evidence linking militias in the Niger Delta with international terrorist groups. There has been some contact between some militia and Islamic groups in northern Nigeria, but there is no evidence of collaboration in activities against oil facilities. The most immediate threat of disruption to Nigerian petroleum production comes from the militias and local communities where facilities are located. We expect the 2007 election to accelerate bunkering (illegal oil theft), arms importation, and the growth in militias.

2. (S) Targets which would likely be of greatest interest to terrorists include Nigeria's largest export terminals, particularly Shell's Bonny terminal; Shell's Forcados terminal; ExxonMobil's Qua Iboe export terminal; Chevron's Escravos complex; Nigerian Liquefied Natural Gas (NLNG); and the Onne Oil and Gas Free Zone. Domestic refineries are not a significant potential terrorist target. A growing number of offshore Floating, Production, Storage, and Offloading (FPSO) vessels in Nigeria will present rich terrorist targets. Nigeria will have one of the world's largest collections of FPSOs in place by about 2009. Liquefied natural gas facilities (LNG) would present significant targets for international terrorists.

No Vulnerability Assessment

3. (S) Post provides the following answers to the Department's questions on the vulnerability of key foreign oil supplies in Nigeria:

-- Have host governments completed vulnerability assessments of the facilities listed below?

The GON has undertaken no systematic vulnerability assessments of the major petroleum facilities, including those referenced in reftel.

GON Control is Partial in Some Areas;
Militias and Communities Most Immediate Threat

-- What actions have they taken to reinforce protection and harden vulnerable infrastructure to prevent terrorist attacks or other disruption?

4. (S) The GON has taken no specific action, other than routine deployment of comparatively ill-equipped government security forces (GSF, which includes military and police forces), to protect petroleum installations against terrorist attacks. The Inspector General of the Police has recently admitted the police have problems combating crime due to chronic neglect, and the GON alone cannot stop these problems. The GON's ability to protect infrastructure from militia groups has not improved.

Unmanned Facilities Vulnerable to Bunkering

15. (C) Nigeria has a decentralized and far-flung oil production network. Many wellheads and flow stations are unmanned, as it is less expensive for companies to suffer oil theft than to pay personnel to stay on site. Unmanned flow stations and other facilities are particularly vulnerable to bunkering (illegal theft of oil). Remote sensing equipment to detect theft is rarely used, as it is also vulnerable to theft.

Government Security Forces Protect Larger Facilities, but Remain Outgunned by Militias

16. (C) Facilities, such as large flow stations, tank farms and export terminals, are typically guarded by a combination of GSF, and private contract guards employed by the operator. Armed protection is supplied by GSF, consisting of the mobile police (mopol), and troops from the army and navy. In confrontations with militias in the Delta region, GSF do not have the superiority of numbers or of weaponry. Movement on the water in the Delta region is typically carried out accompanied by the Nigerian Navy. Depending on vessel availability, the Navy may send a separate escort vessel, or may ride in the company's vessel.

Petroleum Installations Vulnerable to Community Groups and Militias

17. (C) Petroleum production installations, particularly those with few security forces present, are highly vulnerable to attack by community groups and militias. There have been a number of successful community invasions during the last several years at major petroleum facilities. Community groups sometimes occupy oil facilities to express their displeasure with company employment or community development policies. These invasions are usually peaceful, and end after a couple of days. Essential personnel often remain in place and continue production during these occupations.

Militia Groups Practice Extortion; Damage to Facilities Rare but not Unknown

18. (C) Militia groups often operate through extortion, for example, kidnapping oil company employees for cash ransoms, or demanding payments for "protecting" company assets. More rarely, militia groups encroach upon facilities, compounds, or vessels without warning. Notwithstanding the December 21 attack against a Shell pipeline in Rivers State, militia groups more typically aim to extort money rather than destroy oil facilities. As part of their extortionist practices, militia groups often employ public threats that they will destroy oil installations, often with no apparent substantive action to carry out the threat. Threats from members of community groups and militias are not fully distinct, as group memberships often overlap (and continue to evolve). For example, broad-based ethnic organizations such as the Ijaw Congress include a range of members, from the militia-affiliated youth group, the Ijaw Youth Council, to respected interlocutors with national standing, such as the Ijaw Monitoring Group.

2007 Elections will Intensify Bunkering and Militia Activity

19. (S) Militia groups are a large problem in the Delta region. Government officials have helped arm militias to influence elections in their favor. Some observers implicate governors and high-ranking Naval officials in bunkering. Proceeds from bunkering directly or indirectly pay militia members and finance arms purchases. We expect the 2007 election to accelerate bunkering, arms importation, and the growth in militias.

Rogue Government Elements Pose Threat to Daily Petroleum Operations

10. (S) Elements in the police and the Nigerian state security service (SSS) practice extortion, including against U.S. firms. To date, this has not affected petroleum operations, but such malpractice's have the potential to do so. This extortion is typically directed against oil service companies (OSCs), many of which carry out key support operations, such as drilling, pipelaying, and logistics support. Rogue officials demand payments to avoid shutting down a company's offices or operations, arresting key employees, or seizing vehicles.

Review of Petroleum Production Facilities: Export Terminals and other Export Facilities

11. (S) -- What would be the impact if one of these facilities reduced or halted its output? (Posts are requested to quantify this impact in barrels per day of output.)

Nigeria currently has five on-shore export terminals and one Floating, Storage, and Offloading (FSO) vessel through which it exports crude and related petroleum products. Export facilities with their average daily exports include:

--Shell Bonny Export Terminal - 450,000-480,000 barrels per day (bpd)
--Shell Forcados Export Terminal - 350,000-380,000 bpd
--ExxonMobil Qua Iboe Export Terminal - 650,000 bpd capacity
--Chevron Escravos Export Terminal - 200,000-250,000 bpd
--Chevron Olobiri FSO Vessel - 20,000 bpd
--AGIP Brass Export Terminal - 200,000 bpd

12. (S) Export facilities are a more likely target for international terrorist activity than individual production facilities, as they centralize significant amounts of production.

Onne Free Zone Possible Target

13. (U) The Onne Oil and Gas Free Zone (Onne) is a duty-free export processing zone on the Bonny River, about 40 kilometers from Port Harcourt. The Onne Port Complex covers 16 square kilometers, with a majority of the land still unused. Onne's facilities include a railway to Port Harcourt, container and bulk terminals, a transit terminal managed by Intels, a deep offshore support base, a construction yard, customs offices, the Bonny Cement Factory, tanks for drilling mud and liquid storage, and a dry dock. Onne facilities also include the Intels-managed Federal Ocean Terminal (FOT) and Federal Lighter Terminal (FLT). FOT's jetty is 520 meters, with a 10-meter low water draft. FLT's jetty is 1300 meters, with a 6-meter low water draft. The terminals are being expanded to accommodate 70,000 tonne vessels. The terminals also include a 200,000 square meter bulk and container storage area. Oil and gas services in the free zone include, amongst others, terminal operations, provision of drilling muds and chemicals, drilling contractors, supply boat services, wellhead services, and project companies carrying out major fabrication and construction tasks.

14. (S) Onne hosts the vast majority of the support infrastructure for Nigerian oil and gas production. The degree of centralization of support functions represents an enormous security risk to the industry. Most of the industry's logistics support, including such basics as food and supplies for platform production crews, is based from Onne. The Nigerian petroleum sector is virtually entirely dependent on imported inputs, most of which arrive via Onne, and without which the industry would slowly grind to halt. Onne Free Zone also hosts virtually all of the deepwater field construction support; damage to Onne facilities could significantly slow construction schedules for new fields. During periods of increased tension in the Delta, Onne is frequently a target for gangs and rioters; some operations shut down during September 2005 tensions. Onne is on a narrow channel navigable only during the day for security reasons. A terrorist or militia strike at Onne would not cripple petroleum exports immediately, but inability to resupply and transfer crews would cripple production within a two to three week timeframe. While other ports in the region could take over some port operations in the event of operations ceasing at Onne, no other facility has the capacity to replace the scale and breadth of Onne's operations. Additionally, Onne is designed as a transshipment port for West and Central African countries, distributing inputs for oil and gas operations in Cameroon, Equatorial Guinea, Gabon, Congo, Angola, and Sao Tome and Principe.

15. (S) Shell and Chevron are sufficiently concerned about Onne's vulnerability that they are planning to build another logistics support base in Lagos. ExxonMobil may join in this effort. However, such a multi-billion dollar facility is in the early planning stages, and its realization several years in the future. President Obasanjo has appointed a commission to work on Onne's security vulnerabilities and examine construction of an alternate site in Lagos.

Nigerian Refineries not Significant to International Market, Unlikely Terrorist Target

16. (U) Refineries: Existing Nigerian refineries are Port Harcourt I and II, Kaduna and Warri. These parastatal refineries have a combined nameplate capacity of about 439,000 bpd, while the GON declares domestic consumption to be the equivalent of 240,000 bpd.

17. (S) Due to poor maintenance, the actual production of

the parastatal refineries careens wildly, with the average production likely in the range of 50 percent of capacity. The refineries cannot meet all of Nigeria's domestic demand, and do not export any refined products. They are not of great direct importance to world refining capacity. However, if the refineries are targeted, Nigeria would probably seek to force the oil companies to supply refined product to Nigeria.

Small-Scale Disruptions Frequent: Market Reaction often Bigger Threat than Loss of Barrels

18. (S) Most existing on-shore and shallow water production assets would not present an attractive target for international terrorist groups. Each facility represents a relatively small amount of production, usually less than 25,000 bpd. Production losses due to community unrest are usually localized, and result in the loss of a few tens of thousands of barrels, for a week or less. (However, Chevron has suffered a loss of over 100,000 bpd for over 2 years.) These small losses are not significant, but market reaction can produce a price surge disproportionate to actual production lost.

19. (C) Disruption in Nigerian crude is significant not only for barrels lost, but also because Nigerian crude is light and sweet, and easily refined (65% of Nigerian crude has an API of 35 or higher, making it refineable for products such as aviation fuel.)

Shell Facilities and Production Review

20. (U) Shell Petroleum Development Corporation (SPDC), is Nigeria's largest producer, producing more than a million barrels/day. However, SPDC owns only 30% of its production, with the rest spread between shareholders Nigerian National Petroleum Corporation's (NNPC, the national oil company), Total, and AGIP. Of this approximately 300,000 bpd, most is destined for U.S. refineries. The bulk of its production is centered in Rivers, Delta, and Bayelsa states, but there are also operations in Abia, Imo, Edo, and Ondo states. Much of the production is on-shore or in shallow swamp areas. SPDC has more than 6,000 kilometers of pipelines and flowlines, 87 flow stations, 8 gas plants, and more than a thousand wells.

Shell Facilities: Bonny Island Terminal and NLNG Possible Terrorist Targets

21. (S) Bonny Island may be the largest potential on-shore terrorist target in Nigeria, due to its concentration of large facilities: Bonny Export Terminal and Nigerian Liquefied Natural Gas (NLNG), both undergoing expansion, as well as ExxonMobil facilities. Community relations on Bonny Island are peaceful compared to much of the Niger Delta, although a community group has told us the Ijaw Youth Council is attempting to recruit on the island.

22. (S) Shell exports its production through two export terminals:

--Bonny Export Terminal - 450,000-480,000 of Bonny light crude, and

--Forcados Export Terminal - 350,000-380,000 bpd of Forcados blend crude. Forcados has 2 mooring buoys with a draft of 19.8 meters and no length restriction. The terminal has a 7.3 million barrel storage capacity, and a maximum loading rate of 86,250 barrels/hour.

Shell handles exports of its own crude, as well as production from Chevron, Total, and other producers through these terminals. Shell's expansion project for the Bonny Export Terminal will allow it to handle 1.5 million bpd by 2006. This will make the Bonny Terminal the largest export terminal in Nigeria by several orders of magnitude, and a potentially rich target for terrorists.

23. (U) NLNG: Nigeria is becoming a major source for liquefied natural gas (LNG) for western markets. Shell operates Nigerian LNG (NLNG), located on Bonny Island. NLNG has four trains operational, with the fifth train due to come on line this year, bringing total production to 17 metric tons per annum (mta) for LNG and 3.4 mta of LPG. Train six is under construction, and will bring the NLNG's capacity to 20 mta of LNG by 2007. Additionally, the Soku Gas Transmission Pipeline is under construction and planned for a late 2005 completion; it will transport gas from Shell's Soku production facilities to NLNG. Currently, NLNG's major market is in Europe, but with expansion, it will begin to export to the US as well.

Bonga: Nigeria's First Major Deepwater Project On-Line Soon

¶24. (U) Nigeria's first major deepwater project, the Bonga field, came on line in 2005. The Bonga field is located 150 kilometers off Delta state in 1000 meters of water, in oil mining lease block (OML) 118. Production is carried out via the Bonga FPSO. FPSOs are supertankers which produce petroleum products via a system of flexible hoses connected to dozens of subsea wellheads. Bonga's initial production from 30 seabed wells will start at 100,000 bpd, and rise to 200,000-250,000 bpd of crude within a year. Recoverable reserves are estimated at 1.2 billion barrels. Gas production will be 150 million standard cubic feet/day of gas. The Bonga FPSO is a double-hulled vessel with a single-hull bottom, and a storage capacity of 2 million barrels. By January 2006, oil will be exported via tanker on a 5-day cycle, with gas sent via the Offshore Gas Gathering System (OGGS) to NLNG for processing. FPSOs remain in place for the operational life of the field, often up to 20 years. Shell will also operate the Bonga SW deepwater field, which is in planning stages.

¶25. (S) FPSOs such as Bonga are currently beyond the reach of traditional community groups, but would represent a valuable target for international terrorists.

ExxonMobil Facilities and Production Review

¶26. (U) ExxonMobil facilities are largely based in Akwa Ibom State. Its shallow water operations are in oil mining lease (OML) blocks 67, 68, 69, 70, and 94, where it operates 22 fields over 810,000 acres. In Nigeria, ExxonMobil operates 92 platforms, 67 wellheads, 5 gas compression facilities, and 1 natural gas-to-liquids (NGL) extraction facility. ExxonMobil produces about 580,000 barrels/day, and pending availability of NNPC joint venture financing, plans to increase production to 1.2-1.3 million bpd by 2010.

Shallow Water Fields

¶27. (C) ExxonMobil's shallow water fields include:

OML 67 - Ufeni, Ede, Isobo, Mfem, Unam A, Etoro, Eku, Ubit, Iyak, Utue, Okwok
OML 68 - Ata, Inanga, Idoho
OML 70 - Obu, Oso, Aban, Usari, Usari EE, Enang, Udara, Asabo, Emiang, Nkuku, Adua, Ekpe, Ekpe WW, Amenam, Asasa, Edop, Etim, Nsung,
OML 94 - Ufan, Yoho, Awaw, Aran

The additional Oil Recovery Project (AOR) is a \$1.7 billion investment which will produce an additional 110,000 bpd of crude, and arrest oil production decline in existing fields through gas compression and re-injection. It is located on the eastern edge of ExxonMobil's operations off Akwa Ibom State, and will service the surrounding shallow water fields. The AOR will be one of the world's largest gas compression platforms at its March 2006 start-up.

Off-Shore Location Offers Protection from Community Disruption

¶28. (S) Most of ExxonMobil's production is offshore (its platforms range from about 11 to 75 miles offshore), so it has significantly fewer problems with community disruption as Shell and Chevron. However, large facilities such as the AOR and facilities in the Oso field could be potential terrorist targets.

Crude Export Facilities: Plausible Terrorist Targets

¶29. (U) ExxonMobil's major export terminal is the Qua Iboe Terminal (QIT). The tank farm has a 650,000 bpd capacity, and currently exports about 500,000 bpd, including condensate. It exports crude from most of the ExxonMobil's shallow water fields, excepting Yoho, via 2 large subsea pipelines. There is a berthing facility a few miles offshore from QIT.

¶30. (U) The Yoho and Awaw reservoirs, located in Oil Prospecting block 94, hold 350 million barrels in reserves. Yoho crude is not exported via Qua Iboe, but rather via the Falcon FPSO. It currently is in place producing about 150,000 bpd under an early production system. The Falcon will be replaced by the Yoho FSO and 5 wellhead platforms for full field start-up by early 2006 for this \$1.2 billion project.

¶31. (S) The QIT, and the Falcon FPSO (to be replaced by the Yoho FSO), should be considered potential terrorist targets, as they are the export facilities for ExxonMobil crude.

Gas Facilities and Export

¶32. (U) ExxonMobil's Bonny River Terminal (BRT), located on Bonny Island, is an NGL fractionation, storage and loading terminal for C3, C4, and C5, producing about 50,000 bpd. The Oso/Natural Gas to Liquids (NGL) I Recovery Complex is located about 20 miles off-shore from BRT, in OML block 70. Oso processes 600 million cubic feet/day of wet gas, recovering 100,000 bpd of condensates, and extracting 50,000 bpd of NGLs, all piped to BRT for further processing. (NGL production is not constrained by OPEC quota, so is of particular interest for Nigeria.) The NGL II Recovery Complex, a \$ 1.2 billion investment will add an additional 42,000 bpd production capacity by 2008, but is not yet under construction.

¶33. (S) The BRT and Oso NGL Recovery Complex I may be considered potential terrorist targets, but are not as prominent as other facilities in the country.

Deepwater Production On Line Soon,
Vulnerable to Terrorism

¶34. (U) ExxonMobil operates the Erha deepwater project, located in block 209, approximately 60 miles offshore from the mouth of the Escravos River, Delta State, in about 3000 feet of water. The Erha FPSO is currently under tow from Singapore, and will be in place by late December 2005. The field is scheduled to begin producing about 150,000 bpd by March 2006, and increase production to 165,000 bpd at peak production by 2008.

¶35. (S) FPSOs such as Erha would represent a valuable target for international terrorists.

Chevron Mid-Africa; Chevron
Facilities and Production Review

¶36. (U) Chevron Mid-Africa is based in Nigeria. Chevron Nigeria produces about 380,000 bpd, with production in three major areas:

Western Area Operations and Export Facilities:
Chevron's Largest in Nigeria

¶37. (C) Warri area, Delta State: The Escravos complex in Warri is Chevron Nigeria's major oil and gas production facility, and is located at the mouth of the Escravos Rivers. Western area operations produce about 300,000 barrels/day crude currently, of which about one-third is sent by pipeline to the NNPC's Warri refinery for domestic use. Escravos hosts a network of aboveground and subsea oil and gas pipelines in this area, including interconnecting Chevron and Shell pipelines.

¶38. (S) Concern for Chevron production in Nigeria currently centers on these facilities, which are under frequent uncertainty due to competing Itsekiri and Ijaw communities in the region. The terminal and related facilities should also be considered the largest potential terrorist target among Chevron assets. Oil exports from Chevron facilities are largely destined for U.S. East Coast refineries.

¶39. (C) Warri area production facilities include:

--Escravos Oil Terminal: The Escravos terminal includes an export terminal and tank farm. The 16 tanks, of which 12 are currently operational, have a 3.6 million barrel storage capacity. The terminal's capacity is 2.8 million barrels.

--North Offshore Line: The north offshore line is about 7 miles offshore, running roughly parallel to shore, and includes 14 oil production platforms. Production platforms include: Delta, Delta South, Tapa, Meren I, Meren WIP, Mejo, Opolo, Malu, Mina, Parabe, West Isan, and Ewan. An FSO (Floating, Storage, and Offloading vessel) is moored offshore near the end of the northern line for export of LPG.

--South Offshore Line: The south offshore intersects the north line, and runs roughly perpendicular to shore for 20 miles, hosting about 9 production platforms, including the highly productive Okan platform. The south offshore line includes most of the gas gathering infrastructure for the Escravos complex, including platforms for condensate and gas gathering. Production platforms include: Okan, Okan Satellite I, Okan Satellite II, Delta South WIP, Mefa, Meji, IBP, and BOP. Two loading berths (S.B.M. 2 and 3) located at end of the south offshore line provide single point mooring for loading of crude and LPG into tankers.

--Onshore/Northern Swamp: Chevron's northern swamp facilities includes a pipeline and 6 production platforms north and northwest of the Escravos compound. They include Dibi, Olero Creek, Opuekba, Abiteye, Utonna, and Makaraba.

The first three facilities are centered along the Benin River near Olero Creek, while the latter three are centered on the creeks of the Escravos River north of the tank farm. These facilities were attacked and occupied in March 2003, resulting in losses of about 140,000 barrels/day, and over half a billion dollars in damage to facilities. This area remains highly volatile; seven Chevron employees, contractors and GSF were killed in April 2004 attempting to carry out a site assessment. Chevron has re-couped about 30,000 bpd in recent months, and hopes to have the swamp facilities fully back on-line within the next 1 to 1 1/2 years.

Expansion Program for Escravos

140. (S) The Escravos complex will undergo significant expansion in the next two years. The addition of billions of dollars in additional gas infrastructure would make the complex an increasingly rich target for terrorist activity. Additional current and future facilities at the Escravos complex include:

--Escravos Gas Plant (EGP) I and II: EGP I and II handle bulk gas separation and processing for current domestic use and projected demand from the West African Gas Pipeline (WAGP).

--Escravos Gas-to-Liquids (EGTL): Chevron has completed site clearance and will soon begin construction of EGTL, a \$1.3 billion facility, to produce 23,00 bpd of premium synthetic fuel (high quality diesel for use in blending stock), 10,000 bpd of Naphtha, and 1000 bpd of LPG. The plant will be operational in 2008, with exports to the U.S. and Europe beginning in 2009. Additional berthing facilities for export tankers are also planned to accommodate these new facilities.

Eastern Area Operations: Less Security Concerns

141. (S) Port Harcourt area, Rivers State: Chevron's Eastern area operations produce about 40,000 bpd. However, given Chevron's shut-in production in the Warri area, production in the east is likely to grow in coming years, despite periodic security problems in Port Harcourt as well. Eastern area operations include 4 production platforms (Robertkiri, located on the Egoribiri Creek, San Bartholomeo River; Idama and Jokka located on the Sambriero River; and the Inda platform, located at the mouth of the New Calabar River.) Chevron crude is exported via pipeline, predominantly through Shell's Bonny export terminal, under crude handling agreements.

--TOPCON facilities: Chevron holds four legacy production platforms from now-merged Texaco Production Company of Nigeria (TOPCON), located offshore Bayelsa State. They range offshore from the mouth of the Pennington River south towards the Sengana River, and include the Pennington, Middleton, Apoi, and Funiwa platforms. Chevron produces about 20,000 bpd from these platforms.

New Deepwater, WAGP, and LNG Projects Possible Terrorist Targets

142. (S) Chevron is leading a number of large projects which represent significant terrorist targets:

--Agbami Deepwater Field: Chevron is operator for a major deepwater field, Agbami, which has 800 million barrel reserves, and at peak will produce 250,000 barrels/day of crude. The field is currently under construction. The Agbami Floating, Production, Storage, and Offloading vessel (FPSO), with a storage capacity of 2 million barrels, will be put in position in 2006 about 70 miles offshore of Bayelsa near the border with Rivers state, in 4800 feet of water. Agbami could be a potential terrorist target.

--West African Gas Pipeline: Chevron Nigeria is the leader of the West African Gas Pipeline Consortium, and has started construction of various pieces of the 450-mile pipeline, which will run from Lagos, Nigeria to Ghana. As a highly visible transnational project, with USG financial backing via the Overseas Private Investment Corporation, the project might have potential to be a terrorist target.

--OK LNG: This 2-train \$6 billion LNG facility is planned for construction on the coastline border of Ogun and Ondo states in the Olokola Free Trade Zone. An initial capacity of 10 million metric tons per annum (mmta) would later grow to 30 mmta. Final investment decision has not been made; if positive, operations are planned about 2009.

--Brass LNG: The Brass LNG project will be a 2-train, 10 million ton/annum facility to be located in Brass, Bayelsa State. A final investment decision has not been made; if positive, operations are planned for 2009.

Total

143. (C) Total does not operate export facilities. Total crude is exported via Shell facilities, predominantly the Forcados export terminal, but also through the Bonny export terminal.

AGIP

144. (C) AGIP produces about 200,000 bpd largely in on-shore and shallow water facilities in Rivers and Bayelsa states. AGIP's crude is largely exported to European markets via its Brass Export Terminal, in Brass, Bayelsa State.

Nigeria's Changing Risk Profile: Deepwater FPSOs
and LNG Present Complex New Risks

-- Are there other facilities which are particularly vulnerable?

145. (S) Major deepwater petroleum fields will come on line from late 2005 onwards; new and expanded LNG facilities will come on line from now until 2009. Deepwater operations and LNG will centralize and scale up petroleum production systems which have been predominantly de-centralized. To date, failure of any one component of the production system has had a low impact on overall production. However, the shift to larger, centralized facilities will present an attractive target to terrorists. The risk of a security system failure may be less in a well-secured large facility, but any such failure could critically damage Nigerian petroleum exports.

FPSO Security in Nigeria

146. (S) Nigeria is entering the era of the FPSO. An FPSO represents a significant terrorist target, albeit one which would require significant organization and sophistication to carry out. By 2009-2010, Nigeria will have one of the world's largest collection of FSOs and FPSOs in place, including Yoho, Bonga, Bonga SW, Agbami, Erha, and Bosi, amongst others. Each of these vessels will produce 100,000-250,000 bpd of crude and other petroleum products. If only current arrangements remain in place, companies will continue to rely on the thin Nigerian Navy and their own unarmed security guards to protect these facilities.

LNG Security in Nigeria: Not Any Better

147. (S) Another emerging vulnerability is Nigeria's growing number of LNG projects, as well as an expanded NLNG. LNG facilities have several components, any of which could be vulnerable to terrorist, militia, or community attack. These include an on-shore processing plant; pipelines, trestles, and jetties; and ship berthing facilities. Finally, expansion of the LNG trade will introduce growing numbers of LNG tankers into poorly-secured Nigerian waters. LNG tankers are typically converted supertankers with capacities over 100,000 square metric tonnes, and would present an attractive terrorist target.

Comment

148. (S) The GON has not systematically addressed the potential of its petroleum production system from domestic or international terrorists. For the GON to handle this potentiality, it will likely require encouragement from the countries whose companies participate in oil production here, and also some degree of assistance to improve security around key oil facilities.

BROWNE